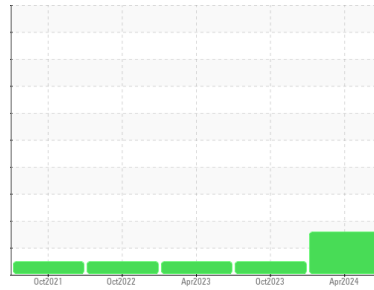




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
731084
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of water present in the oil. Test for glycol is negative.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0117149	GFL0097763	GFL0054899
Sample Date	Client Info	24 Apr 2024	17 Oct 2023	18 Apr 2023
Machine Age	hrs	6571	5466	4437
Oil Age	hrs	1200	1200	1200
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >50	12	12	13
Chromium	ppm ASTM D5185(m) >4	<1	1	1
Nickel	ppm ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm ASTM D5185(m)	<1	0	<1
Silver	ppm ASTM D5185(m) >3	0	<1	0
Aluminum	ppm ASTM D5185(m) >9	2	2	2
Lead	ppm ASTM D5185(m) >30	<1	<1	1
Copper	ppm ASTM D5185(m) >35	1	1	2
Tin	ppm ASTM D5185(m) >4	0	<1	<1
Antimony	ppm ASTM D5185(m)	0	0	<1
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 50	11	9	12
Barium	ppm ASTM D5185(m) 5	<1	<1	0
Molybdenum	ppm ASTM D5185(m) 50	54	61	58
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 560	615	602	594
Calcium	ppm ASTM D5185(m) 1510	1659	1627	1748
Phosphorus	ppm ASTM D5185(m) 780	721	680	774
Zinc	ppm ASTM D5185(m) 870	966	941	978
Sulfur	ppm ASTM D5185(m) 2040	2054	2029	2130
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >+100	2	3	3
Sodium	ppm ASTM D5185(m)	7	8	8
Potassium	ppm ASTM D5185(m) >20	<1	<1	<1
Water	% ASTM D6304* >0.1	▲ 0.198	---	---
ppm Water	ppm ASTM D6304* >1000	▲ 1982	---	---
Glycol	% ASTM D7922*	0.0	---	---

INFRA-RED

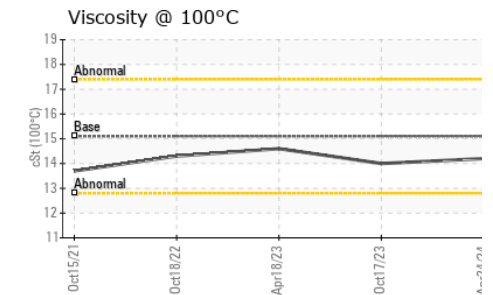
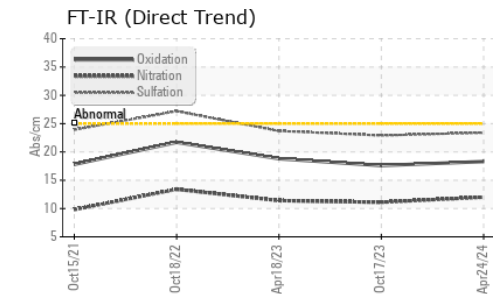
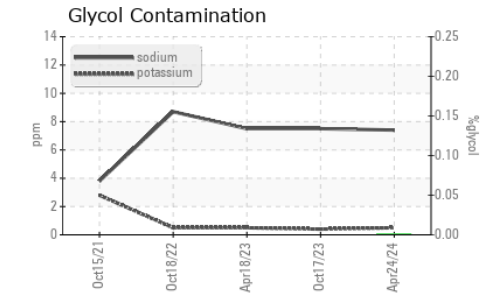
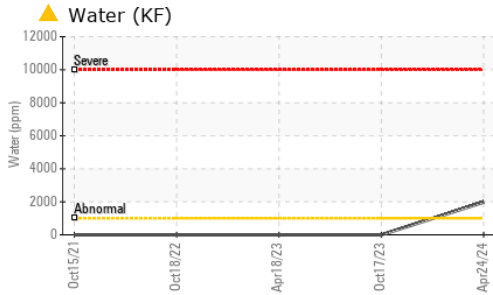
method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	0	0
Nitration	Abs/cm ASTM D7624* >20	12.0	11.1	11.4
Sulfation	Abs/.1mm ASTM D7415* >30	23.4	22.9	23.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	18.3	17.6	18.8



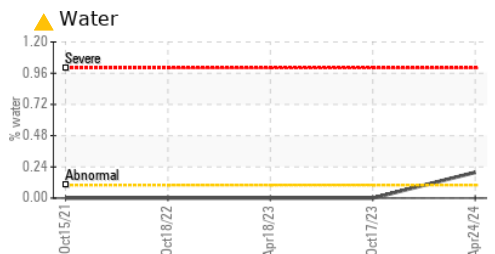
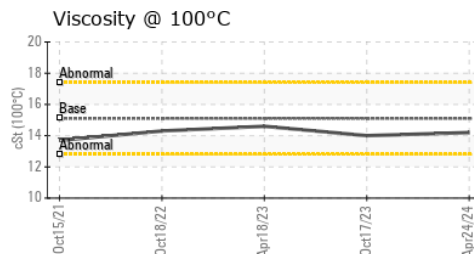
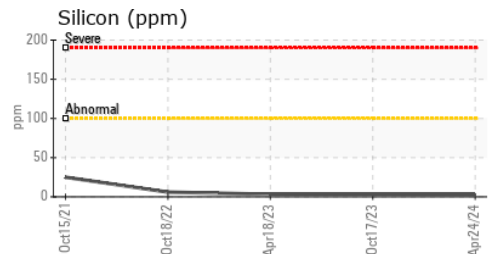
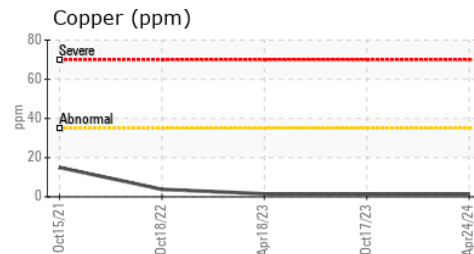
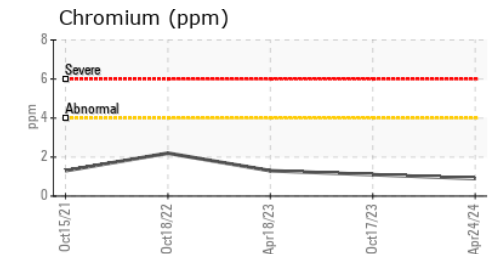
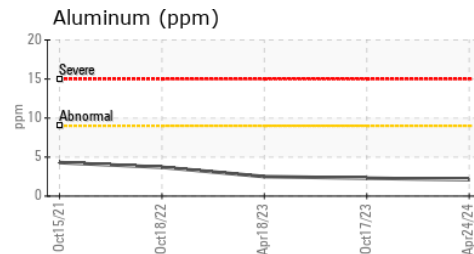
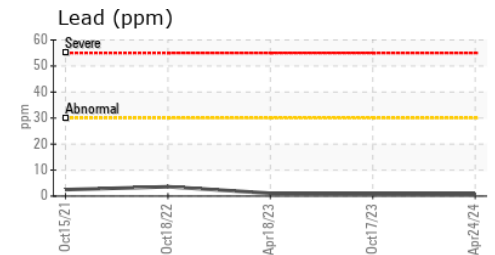
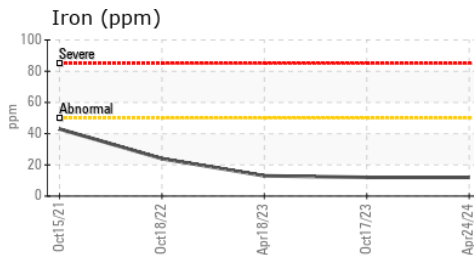
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	▲ .2%	NEG
Free Water	scalar	Visual*		▲ .2%	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.2	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117149
Lab Number : 02631499
Unique Number : 5772652
Test Package : MOB 1 (Additional Tests: Glycol, KF, Visual)

GFL Environmental - 209 - Hamilton
 560 Seaman Street
 Stoney Creek, ON
 CA L8E 3X7
 Contact: Fred Carleton
 fred.carleton@gflenv.com
 T: (289)925-6693
 F: (905)664-9008

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.